

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the above-captioned patent application:

Listing of Claims:

1. (Canceled).

2. (Canceled).

3. (Previously Presented) An incubator as recited in Claim 62, wherein each of said inner and outer rings are supported for rotation about a central axis of an incubator housing.

4. (Canceled).

5. (Canceled).

6. (Currently Amended) An incubator as recited in Claim 3, wherein at least one of said pluralities of circumferentially disposed ~~sample slide~~ element receiving areas includes at least two radially adjacent ~~sample slide element~~ receiving stations disposed in said areas wherein said at least one ~~second drive mechanism~~ reciprocating pusher blade assembly is capable of selectively radially moving said at least one ~~sample slide~~ element between at least said at least two adjacent ~~sample slide~~ element receiving areas.

7. (Currently Amended) An incubator as recited in Claim 6, including at least one read station disposed in relation to one of said inner and outer rings, such that said at least one first drive mechanism can rotate one ~~sample slide~~ element receiving area into a read position, said at least one ~~second drive mechanism~~ reciprocating pusher blade assembly enabling a ~~sample slide~~ element to be selectively and radially moved into the read position.

8. (Original) An incubator as recited in Claim 7, including a dump station radially adjacent said read station.
9. (Currently Amended) An incubator as recited in Claim 7, wherein said read station includes a device capable of detecting an optical property of a test ~~sample~~ slide element.
10. (Original) An incubator as recited in Claim 9, wherein said device is a reflectometer .
11. (Currently Amended) An incubator as recited in Claim 62, wherein said at least one ~~second drive mechanism~~ reciprocating pusher blade assembly selectively and radially removes at least one ~~sample~~ slide element from said incubator for later reinsertion therein.
12. (Currently Amended) An incubator as recited in Claim 7, wherein said read station includes a device capable of measuring an electrical property of a ~~sample~~ slide element.
13. (Original) An incubator as recited in Claim 12, wherein said device is an electrometer.
14. (Currently Amended) An incubator as recited in Claim 62, ~~wherein said sample elements include~~ including a plurality of dry slide elements, each of said dry slide ~~element~~ elements having a volume of a patient sample fluid metered thereupon prior to entry into said incubator.

15. (Currently Amended) An incubator as recited in Claim 6, wherein said ~~at least one second drive mechanism includes~~ at least one ~~shuttle mechanism for~~ reciprocating pusher blade assembly radially ~~shuttling sample~~ shuttles slide elements into and out of said incubator housing.

16. (Currently Amended) An incubator as recited in Claim 15, wherein said ~~shuttle mechanism~~ at least one reciprocating pusher blade assembly is circumferentially disposed immediately adjacent at least one of said ~~at least one second drive mechanism~~ first ring and said second ring.

17. (Currently Amended) An incubator as recited in Claim 15, wherein said ~~shuttle mechanism includes a~~ at least one reciprocating pusher blade assembly is disposed in relation to said incubator housing to shuttle at least one ~~sample~~ slide element into at least one ~~sample~~ slide element receiving station.

18. (Currently Amended) An incubator as recited in Claim 15, wherein said ~~shuttle mechanism~~ at least one reciprocating pusher blade assembly is capable of shuttling at least two radially disposed ~~sample~~ slide elements into radially adjacent ~~sample~~ slide element receiving areas simultaneously.

19. (Currently Amended) An incubator as recited in Claim 15, including a supply of stacked ~~sample~~ slide elements, at least one said reciprocating pusher blade assembly ~~shuttle mechanism~~ being disposed adjacent to said ~~sample~~ slide element supply.

20. (Previously Presented) An incubator as recited in Claim 62, wherein said at least one first drive mechanism includes a belt drive wrapped about the periphery of at least one of said inner and outer rings.

21. (Previously Presented) An incubator as recited in Claim 62, wherein said inner and outer rings are independently driven relative to one another by said at least one first drive mechanism.

22. (Currently Amended) An incubator as recited in Claim 62, wherein at least two load positions of a ~~sample~~ slide element receiving area differ in height relative to one another.

23. (Canceled).

24. (Canceled).

25. (Canceled).

26. (Canceled).

27. (Canceled).

28. (Canceled).

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51. (Canceled).

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53. (Canceled).

54. (Canceled).

55. (Canceled).

56. (Currently Amended) A method as recited in Claim 63, including the additional steps of:

reading a first ~~sample~~ slide element which has been rotated into alignment with a read station;

radially driving an adjacent second ~~sample~~ slide element into alignment with said read station; and

reading said second ~~sample~~ slide element.

57. (Currently Amended) A method as recited in Claim 56, including the step of dumping each of said ~~sample~~ slide elements from said inner ring after said reading steps.

58. (Currently Amended) A method as recited in Claim 57, including the step of loading at least one ~~sample~~ slide element into said inner ring after said dumping step.

59. (Currently Amended) A method as recited in Claim 58, wherein said loading step includes the step of simultaneously radially shuttling at least two adjacent test ~~sample~~ slide elements into radially adjacent ~~sample~~ slide element receiving areas.

60. (Canceled).

61. (Canceled).

62. (Currently Amended) A sequential tandem incubator for use in a clinical analyzer, said incubator comprising:

an inner ring and an outer ring, said outer ring including a first plurality of circumferentially disposed ~~sample~~ slide element receiving areas and said inner ring including a second plurality of circumferentially disposed ~~sample~~ slide element receiving areas, each of said first and second pluralities of ~~sample~~ slide element receiving areas being radially adjacent to one another on a common horizontal plane;

at least one first drive mechanism for driving at least one of said inner and outer rings rotationally; and

at least one second drive mechanism for selectively moving ~~sample~~ slide elements exclusively in a radial direction along said common horizontal plane between said first and second plurality of said circumferentially disposed ~~sample~~ slide element receiving areas in order to increase throughput of said incubator, said at least one second drive mechanism including at least one reciprocating pusher blade assembly for loading slide elements into said inner ring and for moving slide elements between said inner ring and said outer ring.

63. (Currently Amended) A method of incubating and reading test ~~sample~~ slide elements using a sequential random incubator in a clinical analyzer, said sequential random incubator comprising an inner ring and an outer ring, said outer ring including a first plurality of circumferentially disposed ~~sample~~ slide element receiving areas and said inner ring including a second plurality of circumferentially

disposed ~~sample slide~~ element receiving areas, each of said first and second pluralities of ~~sample slide~~ element receiving areas being radially adjacent to one another on a common horizontal plane, said method comprising the steps of:

radially loading at least one ~~sample slide~~ element into an empty ~~sample slide~~ element receiving area using a reciprocating pusher blade assembly disposed in relation to one of said inner ring and said outer ring;

rotating at least one of said inner and outer rings along the horizontal plane;
and

moving said at least one ~~sample slide~~ element radially between said first and second pluralities of radially adjacent ~~sample slide~~ element receiving areas of said incubator along said common horizontal plane so as to improve the throughput of said incubator, wherein said radially moving step is performed using at least one reciprocating pusher blade assembly disposed in relation to said inner ring and said outer ring.

64. (Currently Amended) An incubator as recited in Claim 17, wherein a plurality of ~~shuttle mechanisms~~ reciprocating pusher blade assemblies are disposed at predetermined circumferential locations adjacent to said inner and outer rings.

65. (Currently Amended) An incubator as recited in Claim 64, wherein at least one ~~shuttle mechanism~~ reciprocating pusher blade assembly is radially disposed on the interior of said inner ring.

66. (Currently Amended) An incubator as recited in Claim 64, wherein each of said ~~shuttle mechanisms include a~~ reciprocating pusher blade assemblies are capable of moving radially through each of said inner and outer rings.

67. (Previously Presented) An incubator as recited in Claim 62, wherein said inner and outer rings are concentric about a single center axis.

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68. (Canceled).

69. (Canceled).

70. (Canceled).

71. (Canceled).